



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,713	09/23/2005	Masahiro Karatsu	890050.529USPC	3034

500 7590 07/13/2007  
SEED INTELLECTUAL PROPERTY LAW GROUP PLLC  
701 FIFTH AVE  
SUITE 5400  
SEATTLE, WA 98104

EXAMINER
----------

NGUYEN, DONGHAI D

ART UNIT	PAPER NUMBER
----------	--------------

3729

MAIL DATE	DELIVERY MODE
-----------	---------------

07/13/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,713	<b>Applicant(s)</b> KARATSU ET AL.	
	<b>Examiner</b> Donghai D. Nguyen	<b>Art Unit</b> 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,8,11,14,17,18,21 and 22 is/are rejected.
- 7) ☒ Claim(s) 3,4,6,7,9,10,12,13,15,16,19,23 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/23/05; 10/31/06; 12/15/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because it's too long (it should be within the range of 50 to 150 words). Correction is required. See MPEP § 608.01(b).
2. The disclosure is objected to because of the following informalities: "Figure 100" (page 54, line 4) should be: --Fig 10--. Appropriate correction is required.

### *Claim Objections*

3. Claims 1 and 3 are objected to because of the following informalities: "and including" (claim 1, line 3) should be: --and said the multi-layered unit includes--; "the agglutinant" (claim 3, line 2) should be; --an agglutinant--. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 5, 8, 11, 14, 17, 18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,607,690 to Anahara et al in view of US Patent 6,245,171 to Natarajan et al.

Regarding claims 1 and 2, Anahara et al disclose a method for manufacturing a multi-layered ceramic electronic component comprising steps of: positioning a multi-layered unit (1a)

Art Unit: 3729

including a release layer (Col. 6, line 40), an electrode layer (2) and a ceramic green sheet (11) so that a surface of the multi-layered unit is located on a base substrate (see Col. 6, lines 38), pressing the multi-layered unit toward the base substrate and laminating the multi-layered unit on the base substrate (see Col. 7 lines 13-20). Anahara et al do not disclose the multi-layered unit formed on a support sheet and an agglutinant layer is formed on the base sheet. Natarajan et al teach the multi-layered unit (30) formed on a support sheet (31) and an agglutinant layer (33) is formed on the base sheet (bottom layer 31, see Fig. 3) for laminating the multilayer unit and separating it from the base sheet without damaging the multilayer unit (see Col. 7, lines 47-51). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Anahara et al by utilized the agglutinant layer and forming the multi-layer unit on the support sheet as taught by Natarajan et al for laminating the multilayer unit and separating it from the base sheet without damaging the multilayer unit.

Anahara et al disclose the base substrate having surface roughness except for the base substrate has such surface roughness as to include per  $0.01 \text{ mm}^2$  thereof not more than one protrusion that can penetrate the ceramic green sheet of the multi-layered unit laminated on the base substrate to half or more the thickness of the ceramic green sheet and include per  $100 \text{ mm}^2$  thereof not more than one protrusion that can completely penetrate the ceramic green sheet. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a base substrate having the roughness as recited above, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105, USPQ 233.

The limitations of claim 2 are also met as set forth above.

Art Unit: 3729

Regarding claims 5, 8, 11 and 14, Natarajan et al disclose the agglutinant layer has a thickness of 0.01  $\mu\text{m}$  to 0.3  $\mu\text{m}$  and contains a binder a plasticizing agent and dielectric particles belonging to the same binder, plasticizing agent and dielectric particles groups in the ceramic green sheet (see Col. 5, lines 32-45) the same reasons as provided above.

Regarding claims 17 and 18, Anahara et al disclose the base substrate is formed of a plastic material selected from a group consisting of polyethylene, polypropylene, polycarbonate, polyphenylene ether and polyethylene terephthalate (see Col. 6, lines 38-45).

Regarding claims 21 and 22, Anahara et al disclose the ceramic green sheet has a thickness equal to or thinner than 3  $\mu\text{m}$  (see Col. 5, lines 49-51)

#### ***Allowable Subject Matter***

6. Claims 3-4, 6-7, 9-10, 12-13, 15-16, 19-20 and 23-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art references cited for their teachings of manufacturing multi-layered ceramic component.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donghai D. Nguyen whose telephone number is (571)-272-4566. The examiner can normally be reached on Monday-Friday (9:00-6:00).

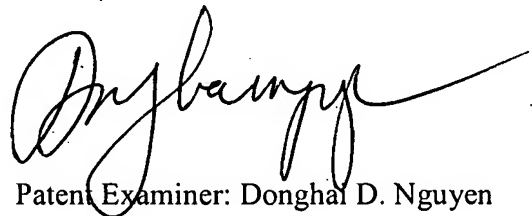
Art Unit: 3729

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (571)-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN

July 8, 2007



Patent Examiner: Donghai D. Nguyen